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PD980079/RCA89866

Amendments to the Claims

Please **rewrite** claims 1-18.

1. (Currently Amended) Apparatus for reading from or writing to optical recording media, comprising:
 - a tracking device,
 - a four-quadrant detector,
 - two summation points,
 - a phase detector for tracking in accordance with a differential phase detection method, said phase detector comprising converters and a phase comparator, and
 - variable delay elements that can be set by a control device,wherein
 - at least one of said variable delay elements is a digital binary variable delay element for delaying only edges in an input signal which assumes just two states and at least one of said variable delay elements is an analog a waveform-preserving delay element for preserving both phase and amplitude information of its input signal, wherein
 - at least one of said variable delay elements is arranged between one of said converters and said phase comparator and at least one of said variable delay elements is arranged between said four-quadrant detector and one of said summation points and, wherein ~~no binary~~ none of the variable delay elements being a digital delay element is arranged between said four-quadrant detector and one of said converters.
2. (Currently Amended) Apparatus according to claim 1, ~~characterized in that respective binary delay elements~~ wherein to each of the summation points one of the variable delay elements being a digital delay element for delaying only edges in an input signal which assumes just two states is ~~are assigned to the~~

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~~summation points~~, and wherein ~~in that~~ a switching device is present for the purpose of connecting one of the digital binary delay elements assigned to the summation points to an output of an offset determining device.

3. (Currently Amended) Apparatus according to Claim 1, ~~characterized in that~~ wherein a switching device is present for the purpose of inserting a variable delay element being a digital binary delay element for delaying only edges in an input signal which assumes just two states ~~of the variable delay elements~~ between one of the summation points and the phase comparator.
4. (Currently Amended) Apparatus according to claim 1, ~~characterized in that~~ wherein a switching device is present for connecting two of the detector elements of the four-quadrant detector to ~~respective waveform-preserving delay elements~~ one variable delay element being an analog delay element for preserving both phase and amplitude information of its input signal, each.
5. (Currently Amended) Apparatus according to claim 1, ~~characterized in that~~ wherein an interference signal generating device is present, whose output is connected to the tracking device and to a first input of the control device, whose second input is connected to the output of the phase comparator.
6. (Currently Amended) Apparatus according to Claim 5, ~~characterized in that~~ wherein the control device has a comparison device, at whose inputs the output signal of the phase comparator and the output signal of the interference signal generating device are present and whose output signal serves for setting at least one ~~waveform-preserving delay element~~ of the variable delay elements being an analog delay element for preserving both phase and amplitude information of its input signal.

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7. (Currently Amended) Apparatus according to claim 1, ~~characterized in that~~ wherein a control output of the control device, at which an output signal is present, is assigned a circuit block, which determines at least one of absolute value and sign of the signal present at the control output.
8. (Currently Amended) Apparatus according to claim 1, ~~characterized in that~~ wherein a converter is connected between a ~~binary delay element of the variable delay elements~~ element being a digital delay element for delaying only edges in an input signal which assumes just two states and one of the summation points.
9. (Currently Amended) Apparatus according to claim 1, ~~characterized in that~~ wherein the control device and at least some of the variable delay elements are realized on an integrated circuit.
10. (Currently Amended) Apparatus according to Claim 1, ~~characterized in that~~ wherein the control device has an offset determining device, at whose input the output signal of the phase comparator is present and whose output signal serves for setting at least one ~~binary delay element~~ of the variable delay elements being a digital delay element for delaying only edges in an input signal which assumes just two states.
11. (Currently Amended) Apparatus according to claim 10, ~~characterized in that binary delay elements~~ wherein to each of the summation points one of the variable delay elements are respectively being a digital delay element for delaying only edges of an input signal which assumes just two states is assigned to the summation points, and ~~in that~~ a switching device is present for the purpose of connecting one of the digital ~~binary~~ delay elements assigned to the summation points to the output of the offset determining device.

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12. (Currently Amended) Apparatus according to Claim 10, ~~characterized in that wherein~~ a switching device is present for the purpose of inserting a binary delay element one of the variable delay elements being a digital delay element for delaying only edges in an input signal which assumes just two states between one of the summation points and the phase comparator.
13. (Currently Amended) Apparatus according to Claim 10, ~~characterized in that wherein~~ a switching device is present for connecting two of the detector elements of the four-quadrant detector to ~~respective waveform-preserving delay elements of the variable delay elements~~ one variable delay element being an analog delay element for preserving both phase and amplitude information of its input signal, each.
14. (Currently Amended) Apparatus according to claim 10, ~~characterized in that wherein~~ an interference signal generating device is present, whose output is connected to the tracking device and to a first input of the control device, whose second input is connected to the output of the phase comparator.
15. (Currently Amended) Apparatus according to Claim 14, ~~characterized in that wherein~~ the control device has a comparison device, at whose inputs the output signal of the phase comparator and the output signal of the interference signal generating device are present and whose output signal serves for setting at least one ~~waveform-preserving delay element of the variable delay elements of~~ the variable delay elements being an analog delay element for preserving both phase and amplitude information of its input signal.
16. (Currently Amended) Apparatus according to claim 10, ~~characterized in that wherein~~ a control output of the control device, at which an output signal is present, is assigned a circuit block, which determines at least one of absolute value and sign of the signal present at the control output.

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17. (Currently Amended) Apparatus according to claim 10, ~~characterized in that wherein~~ a converter is connected between ~~the binary delay element a~~ variable delay element being a digital delay element for delaying only edges in an input signal which assumes just two states and one of the summation points.

18. (Currently Amended) Apparatus according to claim 10, ~~characterized in that wherein~~ the control device and at least some of the variable delay elements are realized on an integrated circuit.